

Amendments to the Claims

1. **(Currently Amended)** A polishing apparatus comprising:

a polishing table having a polishing surface;

a top ring adapted to hold a substrate and press a surface of the substrate against said polishing surface to polish the surface of the substrate, ~~said top ring having a universal joint;~~

at least one optical measuring device disposed adjacent to an outer peripheral portion of said polishing table and below said polishing surface of said polishing table, said at least one optical measuring device being operable to measure a thickness of a layer formed on the surface of the substrate; and

at least one notch formed in said outer peripheral portion of said polishing table, said at least one notch allowing light emitted from said at least one optical measuring device to pass therethrough and be incident on the surface of the substrate and allowing light reflected from the surface of the substrate to pass therethrough and be incident on said at least one optical measuring device, wherein said top ring is swingable between an inner area and an outer area on said polishing table so that the light emitted from said at least one optical measuring device is incident on a position ranging from an outer circumferential edge to a central portion of the substrate.

2. **(Previously Amended)** A polishing apparatus according to claim 1, wherein the substrate has a semiconductor device thereon.

3. **(Canceled)**

4. **(Previously Amended)** A polishing apparatus according to claim 1, wherein when said top ring is swung to a maximum, an area of the substrate which projects outward beyond an outer circumferential edge of said polishing table is not more than 40% of an entire area of the surface of the substrate being polished.

5. (Previously Amended) A polishing apparatus according to claim 1, further comprising a nozzle operable to supply a cleaning liquid to said at least one optical measuring device.

6. (Canceled)

7. (New) A polishing apparatus comprising:

a polishing surface having a notch formed in an outer peripheral portion thereof;

a top ring for holding a substrate and pressing a surface of the substrate against said polishing surface to polish a layer formed on the surface of the substrate; and

a thickness measuring device for measuring a thickness of the layer formed on the surface of the substrate, said thickness measuring device being arranged so that the layer, being polished, on the surface of the substrate, said notch of said polishing surface, and said thickness measuring device are aligned with each other.

8. (New) A polishing apparatus according to claim 7, further comprising a rotatable polishing table and a stationary section,

wherein said polishing surface is mounted on said rotatable polishing table and said thickness measuring device is disposed on said stationary section.

9. (New) A polishing apparatus according to claim 8, wherein said top ring moves the substrate so that a central portion of the layer is positioned on said notch of said polishing surface when said thickness measuring device measures the thickness of the layer.

10. (New) A polishing apparatus according to claim 7, wherein said polishing surface has at least one additional notch, said notch and said at least one additional notch being formed in said outer peripheral portion of said polishing surface.

11. (New) A polishing apparatus according to claim 8, wherein said polishing surface has at least one additional notch formed in said outer peripheral portion thereof, said notch and said at least one additional notch forming a plurality of notches, and

wherein said top ring moves the substrate so that a central portion of the layer is positioned on one of said plurality of notches of said polishing surface when said thickness measuring device measures the thickness of the layer.

12. (New) A polishing apparatus according to claim 9, further comprising a nozzle for supplying a cleaning liquid to said thickness measuring device.

13. (New) A polishing apparatus according to claim 9, wherein the layer on the surface of the substrate comprises an insulating layer.

14. (New) A polishing apparatus according to claim 9, wherein said thickness measuring device comprises an optical measuring device.

15. (New) A polishing apparatus according to claim 12, wherein said thickness measuring device comprises an optical measuring device.

16. (New) A polishing method comprising:
rotating a polishing surface having a notch formed in an outer peripheral portion thereof;
pressing a surface of a substrate against the polishing surface to polish a layer formed on the surface of the substrate; and

measuring a thickness of the layer formed on the surface of the substrate with a thickness measuring device when the layer, being polished, on the surface of the substrate, the notch of the polishing surface, and the thickness measuring device are aligned with each other.

17. (New) A polishing method according to claim 16, further comprising moving the substrate so that a central portion of the layer is positioned on the notch of the polishing surface, wherein said measuring comprises measuring a thickness of a central portion of the layer.

18. (New) A polishing method according to claim 17, wherein the polishing surface has at least one additional notch formed in the outer peripheral portion thereof.

19. (New) A polishing method comprising:

pressing a surface of a substrate against a polishing surface having a notch formed in an outer peripheral portion of the polishing surface to polish a layer formed on the surface of the substrate;

moving the substrate so that a central portion of the layer is positioned on the notch of the polishing surface; and

measuring a thickness of the central portion of the layer formed on the surface of the substrate with a thickness measuring device.

20. (New) A polishing method according to claim 19, further comprising rotating the polishing surface,

wherein said measuring is performed when the central portion of the layer, being polished, on the surface of the substrate, the notch of the polishing surface, and the thickness measuring device are aligned with each other.

21. (New) A polishing method comprising:

rotating a polishing surface having a notch formed in an outer peripheral portion thereof;

pressing a surface of a substrate against the polishing surface to polish a layer formed on the surface of the substrate;

moving the substrate toward the outer peripheral portion of the polishing surface so that a central portion of the layer is positioned on the notch of the polishing surface; and

measuring a thickness of the central portion of the layer formed on the surface of the substrate with a thickness measuring device when the layer, being polished, on the surface of the substrate, the notch of the polishing surface, and the thickness measuring device are aligned with each other.